Government of Nepal

Ministry of Physical Planning and Works

DEPARTMENT OF ROADS

BMS (Bridge Management System)

General User Manual

Hitechvalley iNet

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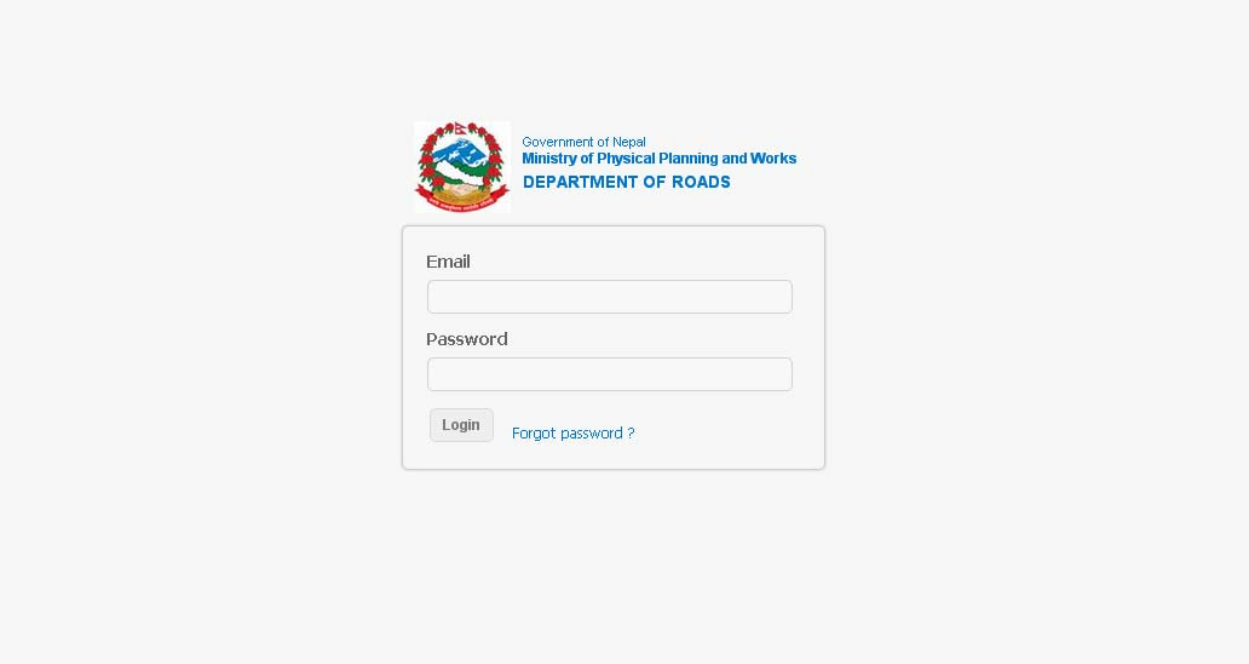
Introduction

Bridge Management System has 2 authenticated user levels (i.e. Administrators and General Users). General Users are limited users. They are forced to be stayed within the privileges that are given by the administrators. This particular document is a user manual for operating the BMS system as a General User with limited privileges.

Login

User can log into the system by using General User login info (i.e. email and password) in the login form shown below.



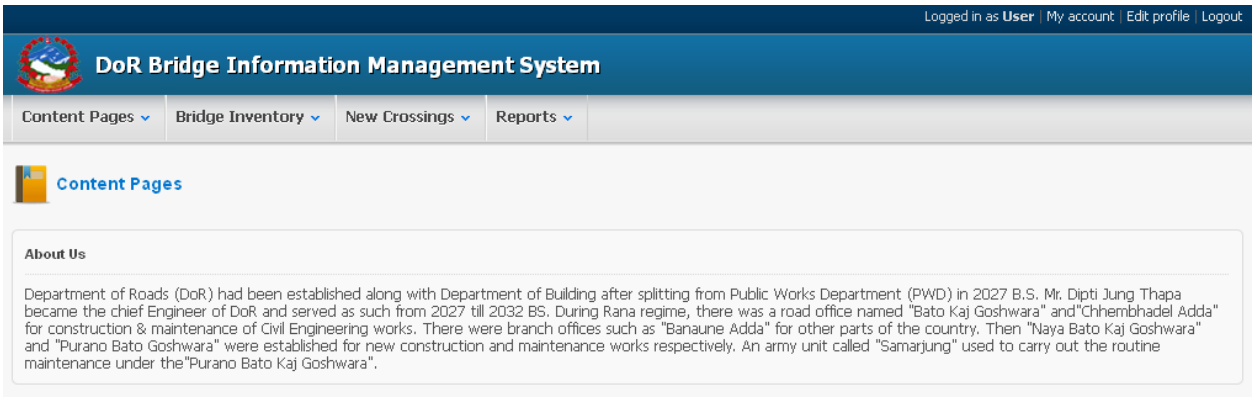
Login Page

Dashboard

After a successful login it will land to a default page “dashboard”. Dashboard is a section where the latest summary reports of some important modules are displayed in compact view.

Content Pages

This is the section where the general content pages such as “about us”,”FAQ”,”privacy policy” are located. In order to edit the contents on those content pages user needs to go to their detail pages by clicking on those individual drop-down links.


Logged in as User | My account | Edit profile | Logout
DoR Bridge Information Management System
Content Pages
Bridge Inventory
New Crossings
Reports
Content Pages
About Us
Department of Roads (DoR) had been established along with Department of Building after splitting from Public Works Department (PWD) in 2027 B.S. Mr. Dipti Jung Thapa became the chief Engineer of DoR and served as such from 2027 till 2032 BS. During Rana regime, there was a road office named "Bato Kaj Goshwara" and"Chhembhadel Adda" for construction & maintenance of Civil Engineering works. There were branch offices such as "Banaune Adda" for other parts of the country. Then "Naya Bato Kaj Goshwara" and "Purano Bato Goshwara" were established for new construction and maintenance works respectively. An army unit called "Samarjung" used to carry out the routine maintenance under the"Purano Bato Kaj Goshwara".

Content Page

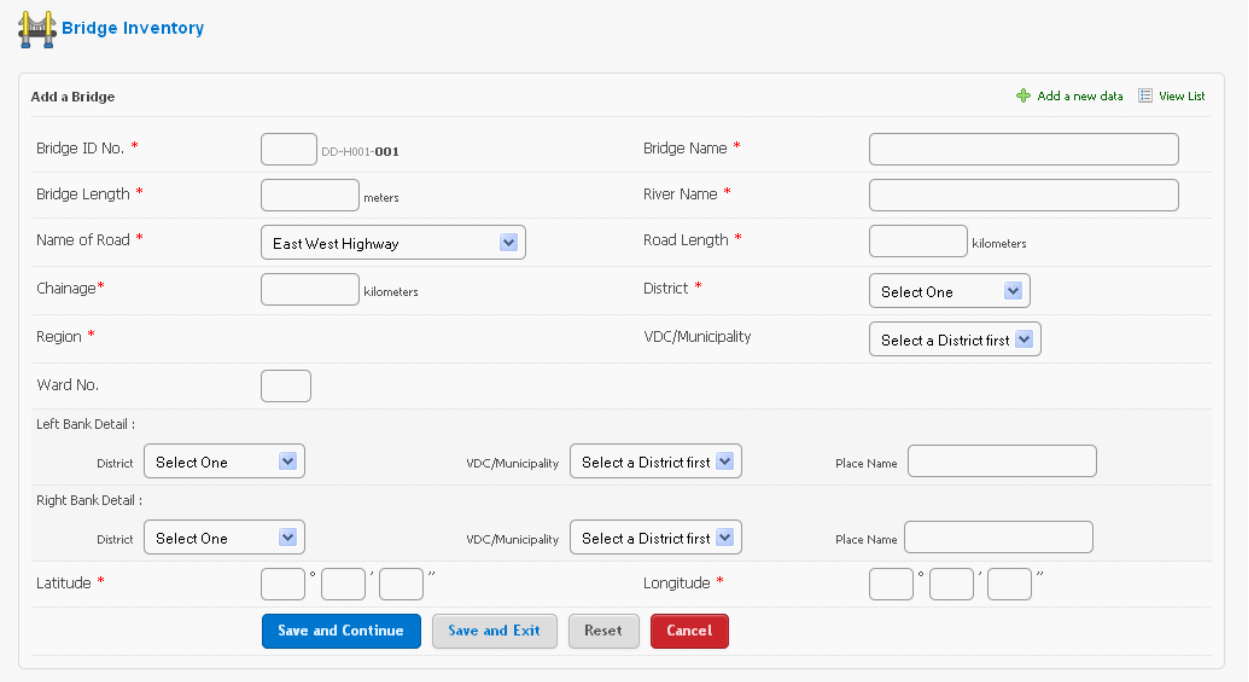
Bridge Inventory

Bridge inventory section is located at second position on the top menu. It consists of following sub menus.

1. Add a New Bridge :

   1.1. Primary detail :

   This page consists of a form (Primary detail form). It allows users to add primary details of a new existing bridge. Each bridge does have several data under different headings. Filling them in a single form may consume longer time and also users may not feel comfortable. So we have broken it down to 7 different forms. The primary detail form is the very first form, which looks like the picture shown below. We can see 2 different buttons for saving data on the bottom of the form. "Save and Continue" and "Save and Exit". Button "Save and Continue" saves the primary data and leads to another form, whereas the "Save and Exit" button saves the primary data and leads to the bridge listing page. This button can be used to update bridge data partially.



Primary detail form

1.2. General Info :

This form allows users to add/edit General Info of a new existing bridge. Along with this form we can see 5 other sub-forms on the left vertical menu just like shown below in the picture.

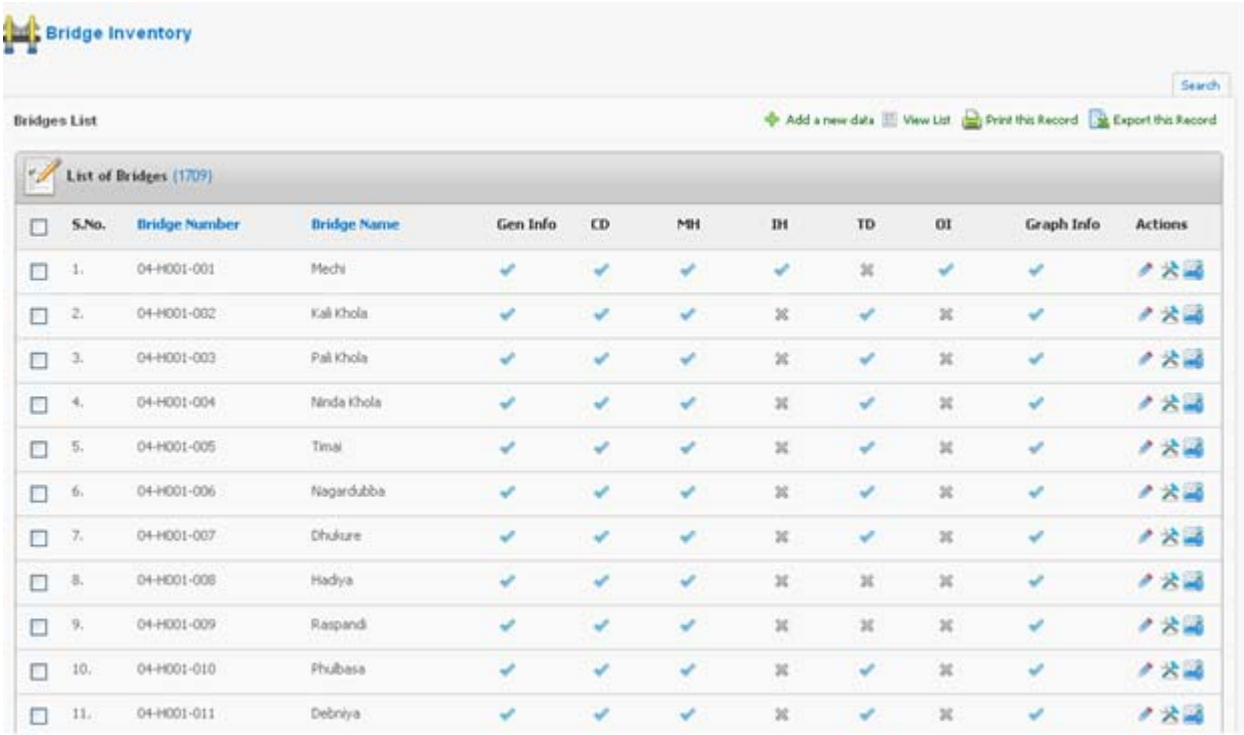
General info form

Just like General Info form users can use 5 other rest forms as well.

P.S. In order to fill “Detail of River training works” form, user has to select “Yes” for river training in the “Construction Detail” form.

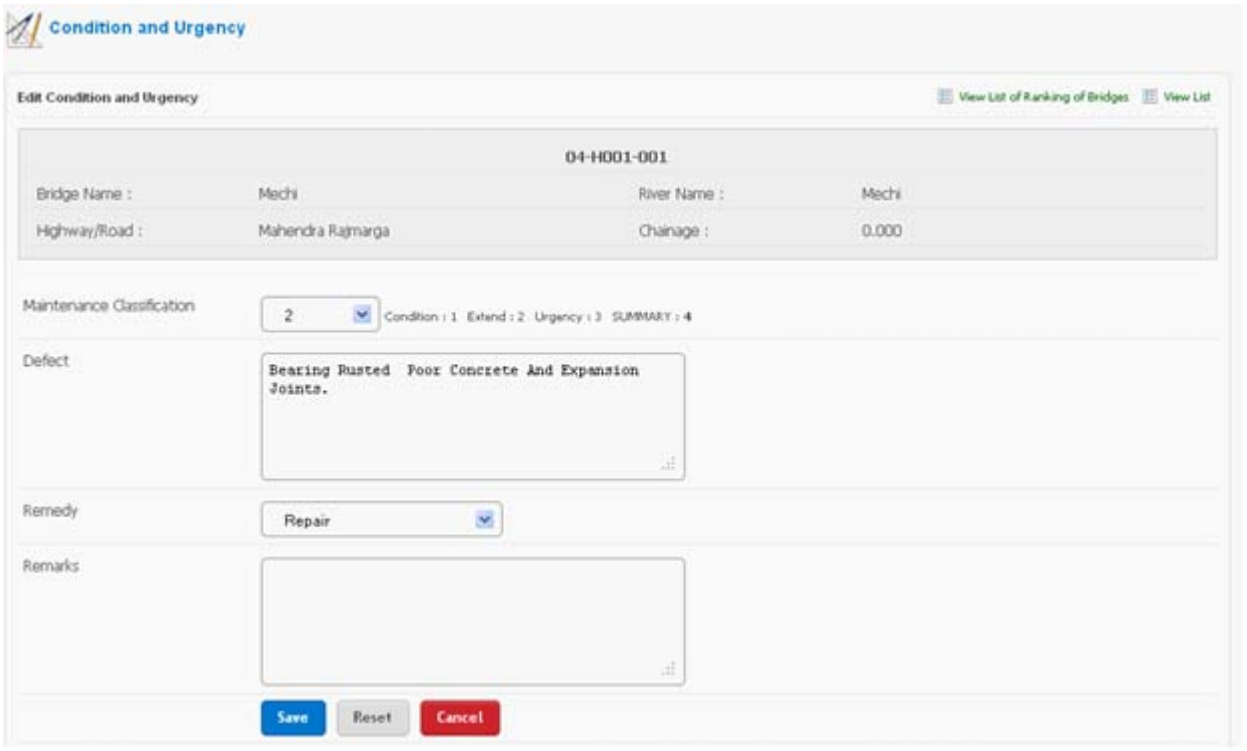
2. View Bridges :

By clicking on the “View Bridges” icon we can see the list of all bridges that inserted so far. In the tabular form we can see even the statuses of 6 other forms. Tick marked icon shows that the form has already filled for the particular bridge and cross icon shows that the form has not been filled yet. Under the “Actions” column we can see 3 icons for editing primary detail, adding/editing condition assessments and viewing maps respectively.



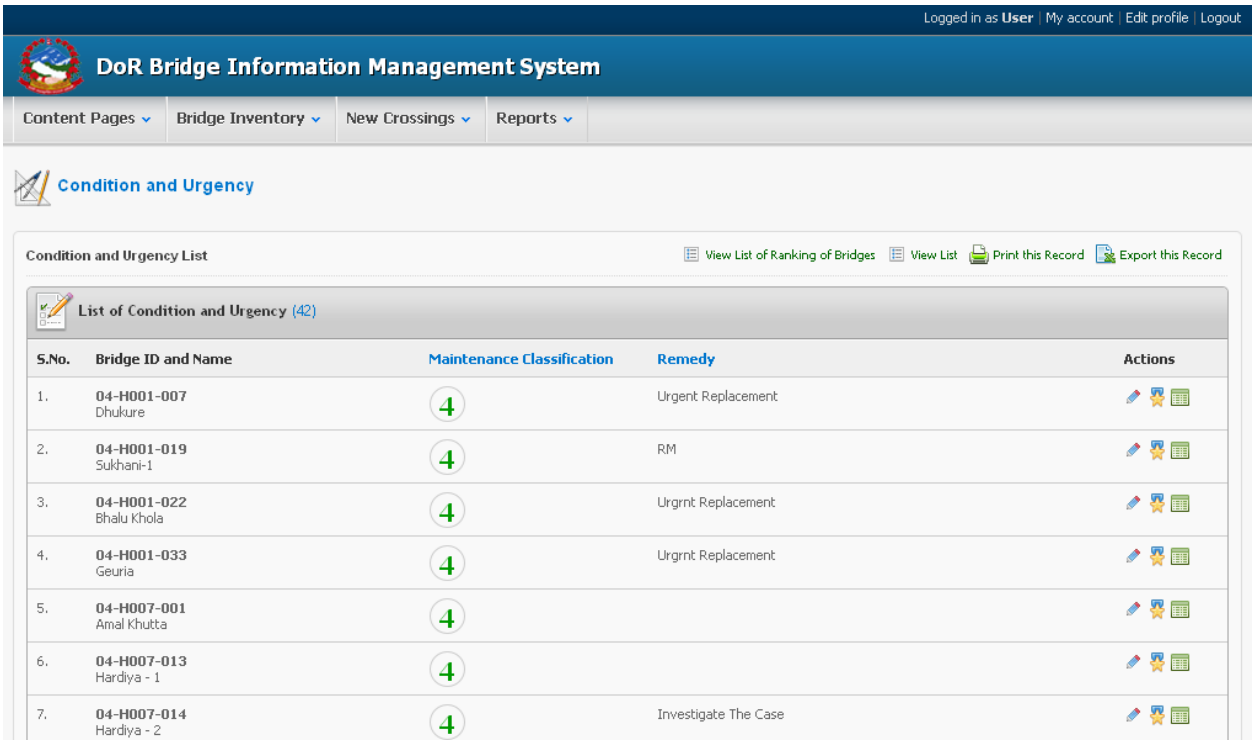
Bridge List

3. List of Condition and Urgency :
   By clicking on the “adding/editing condition assessments” icon user can go to the condition and urgency section. It consists of a form where user can edit Condition and Urgency for the particular bridge. The form looks like the picture below.



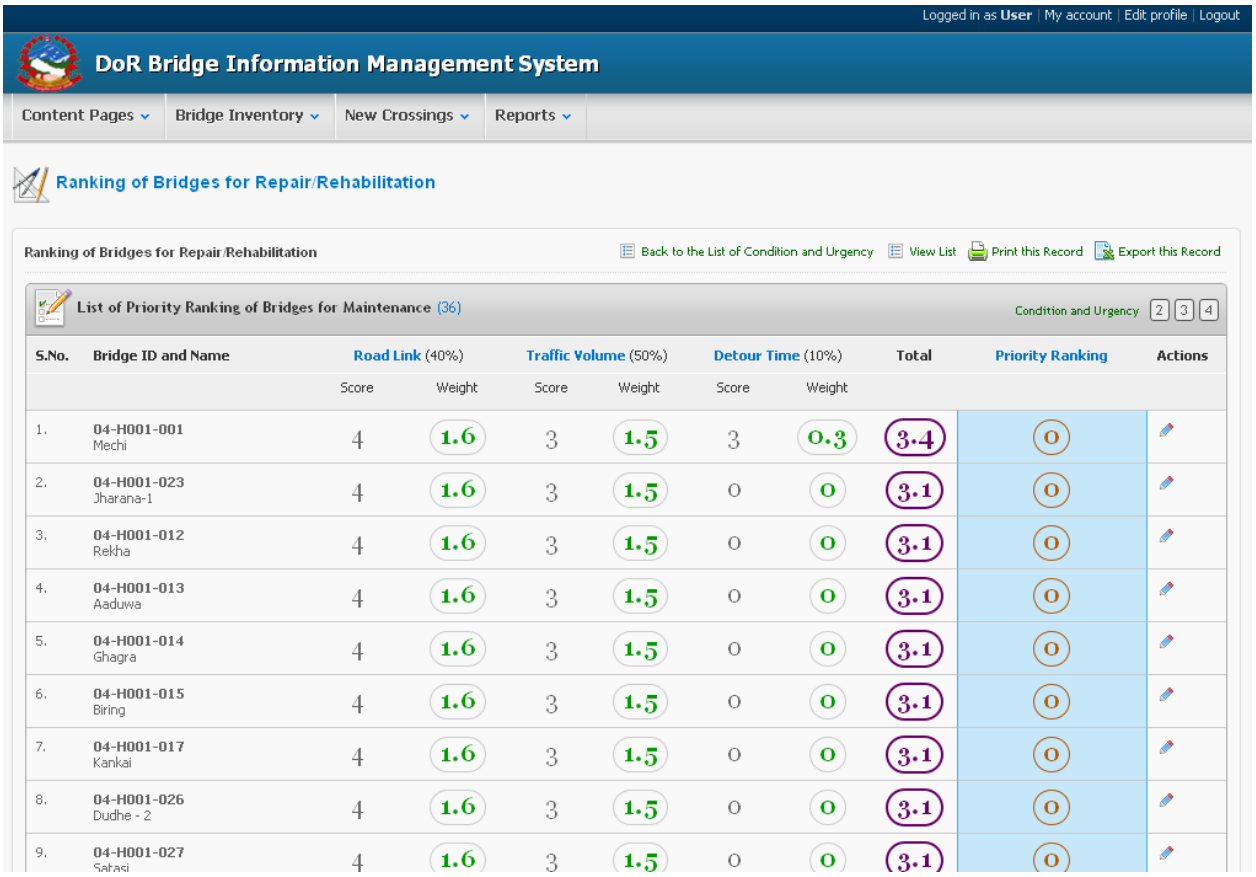
Add/Edit Condition and Urgency

If we click on the "List of Condition and Urgency" it will lead to a listing page of Conditions and Urgency.


Logged in as User | My account | Edit profile | Logout
DoR Bridge Information Management System
Content Pages
Bridge Inventory
New Crossings
Reports
Condition and Urgency
Condition and Urgency List
View List of Ranking of Bridges
View List
Print this Record
Export this Record
List of Condition and Urgency (42)
S.No. Bridge ID and Name Maintenance Classification Remedy Actions
1. 04-H001-007 Dhukure 4 Urgent Replacement
2. 04-H001-019 Sukhani-1 4 RM
3. 04-H001-022 Bhalu Khola 4 Urgrnt Replacement
4. 04-H001-033 Geuria 4 Urgrnt Replacement
5. 04-H007-001 Amal Khutta 4
6. 04-H007-013 Hardiya - 1 4
7. 04-H007-014 Hardiya - 2 4 Investigate The Case

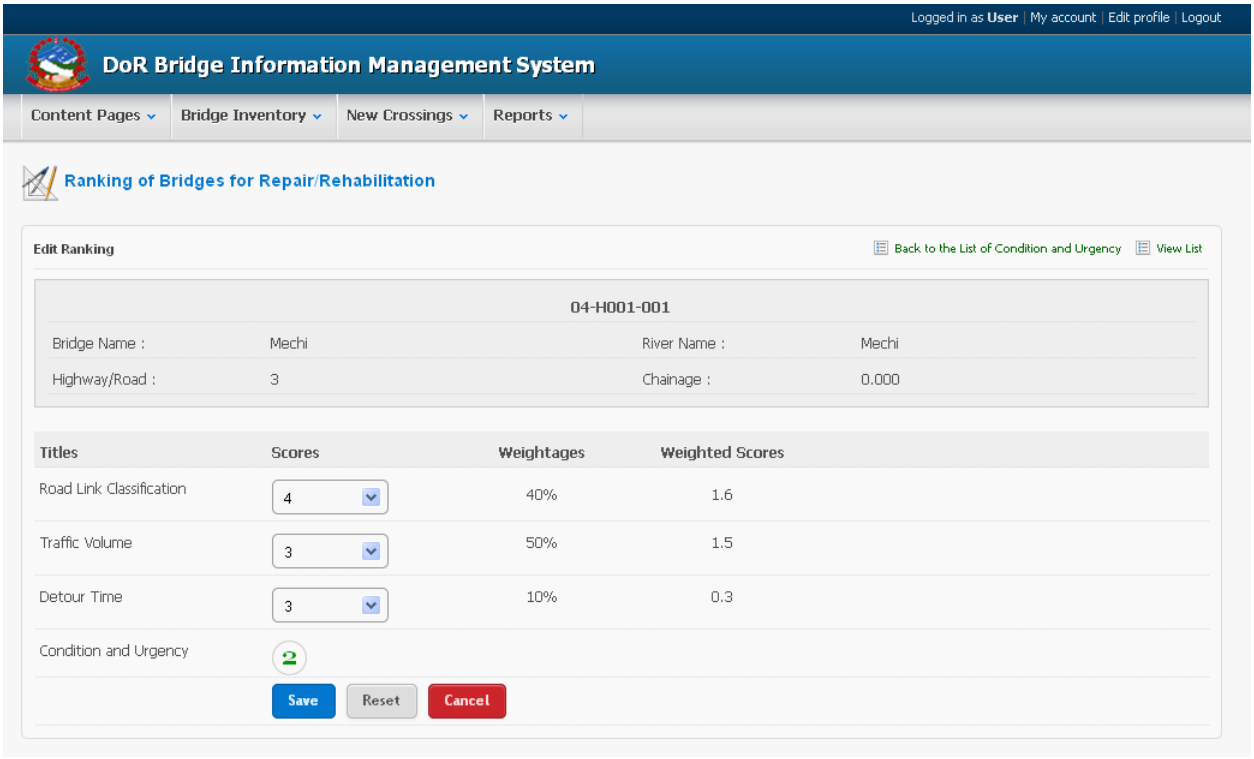
4. List of Regular Maintenance :
   While updating “Condition and Urgency”, if a bridge has 0 or 1 ranking for Maintenance Classification then those Condition and Urgency lists are shown here.
5. List of Ranked Bridges :

   In order to rank (add/edit rankings) an existing bridge user has to click on the star icon under Actions column of Condition and Urgency list. And “view list of Ranking of Bridges” leads to the list of Ranked bridges just like shown below in the picture.


Logged in as User | My account | Edit profile | Logout
DoR Bridge Information Management System
Content Pages
Bridge Inventory
New Crossings
Reports
Ranking of Bridges for Repair/Rehabilitation
Ranking of Bridges for Repair/Rehabilitation
Back to the List of Condition and Urgency
View List
Print this Record
Export this Record
List of Priority Ranking of Bridges for Maintenance (36)
Condition and Urgency 2 3 4

S.No.	Bridge ID and Name	Road Link (40%)		Traffic Volume (50%)		Detour Time (10%)		Total	Priority Ranking	Actions
		Score	Weight	Score	Weight	Score	Weight			
1.	04-H001-001 Mechi	4	1.6	3	1.5	3	0.3	3.4	0	
2.	04-H001-023 Jharana-1	4	1.6	3	1.5	0	0	3.1	0	
3.	04-H001-012 Rekha	4	1.6	3	1.5	0	0	3.1	0	
4.	04-H001-013 Aaduwa	4	1.6	3	1.5	0	0	3.1	0	
5.	04-H001-014 Ghagra	4	1.6	3	1.5	0	0	3.1	0	
6.	04-H001-015 Biring	4	1.6	3	1.5	0	0	3.1	0	
7.	04-H001-017 Kankai	4	1.6	3	1.5	0	0	3.1	0	
8.	04-H001-026 Dudhe - 2	4	1.6	3	1.5	0	0	3.1	0	
9.	04-H001-027 Satasi	4	1.6	3	1.5	0	0	3.1	0	

List of Ranking of Bridges



Add/Edit Rankings

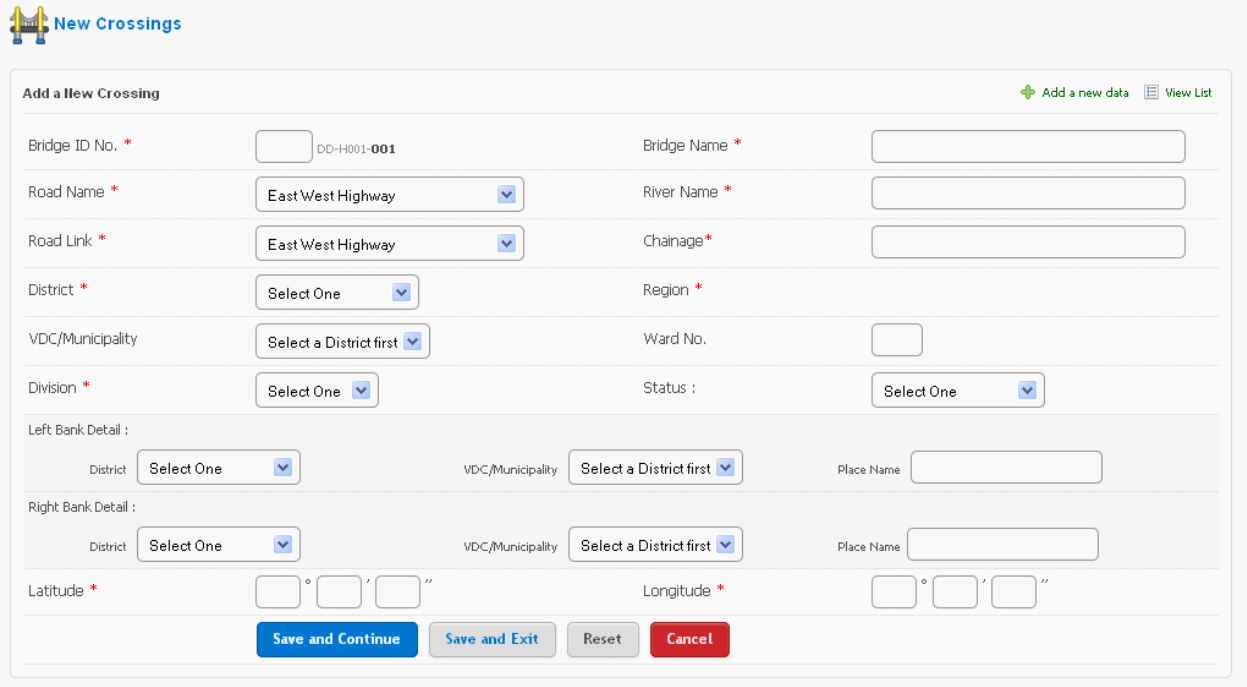
New Crossings

New Crossing section is located at third position on the top menu. It consists of following sub menus.

1. Add a New Bridge :

   1.1. Primary detail :

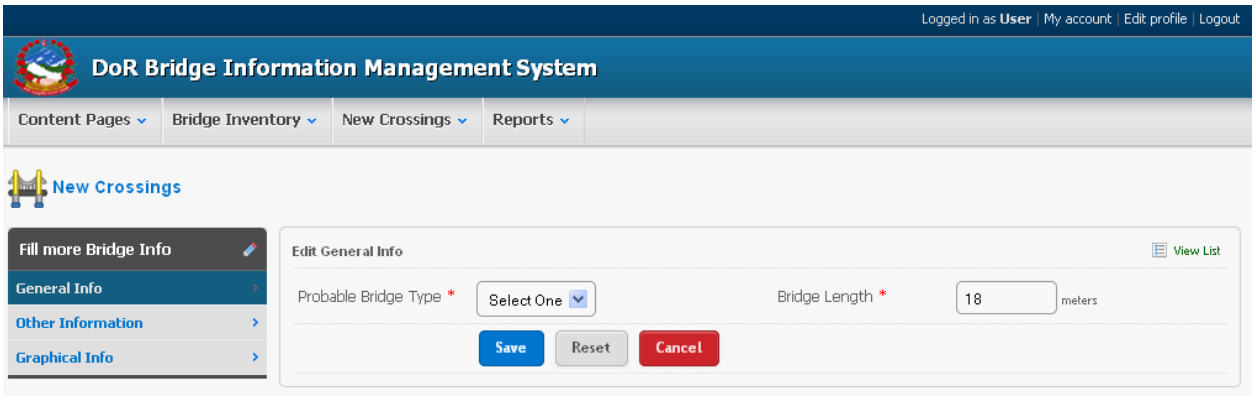
   This page consists of a form (Primary detail form). It allows users to add primary details of a new New Crossing. Each bridge does have several data under different headings. Filling them in a single form may consume longer time and also users may not feel comfortable. So we have broken it down to 4 different forms. The primary detail form is the very first form, which looks like the picture shown below. We can see 2 different buttons for saving data on the bottom of the form. "Save and Continue" and "Save and Exit". Button "Save and Continue" saves the primary data and leads to another form, whereas the "Save and Exit" button saves the primary data and leads to the bridge listing page. This button can be used to update bridge data partially.



Primary detail form

1.2. General Info :

This form allows users to add/edit General Info of a new New Crossing. Along with this form we can see 3 other sub-forms on the left vertical menu just like shown below in the picture.



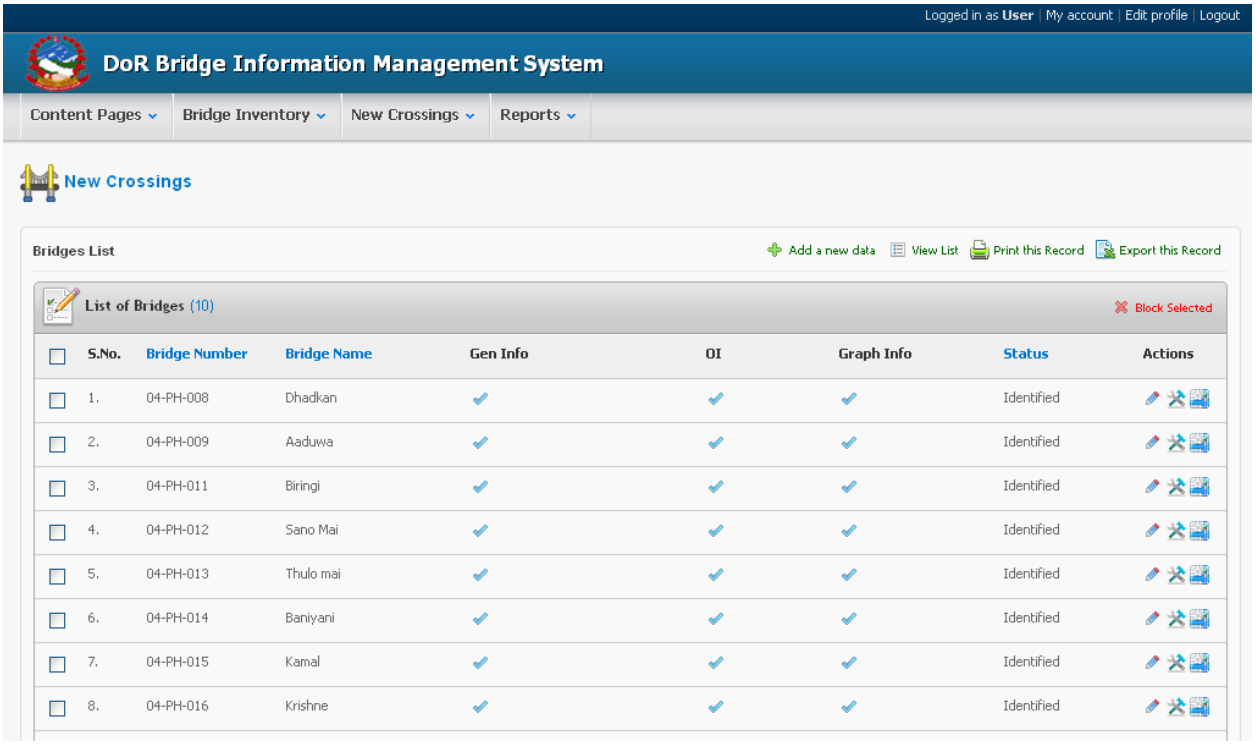
General info form

Just like General Info form users can use 2 other rest forms as well.

2. View Bridges :

   By clicking on the "View Bridges" icon we can see the list of all New Crossings that inserted so far. In the tabular form we can see even the statuses of 3 other forms. Tick marked icon shows that the form has already filled for the particular new crossing and cross icon shows that the

form has not been filled yet. Under the “Actions” column we can see 3 icons for editing primary detail, adding/editing rankings and viewing maps respectively.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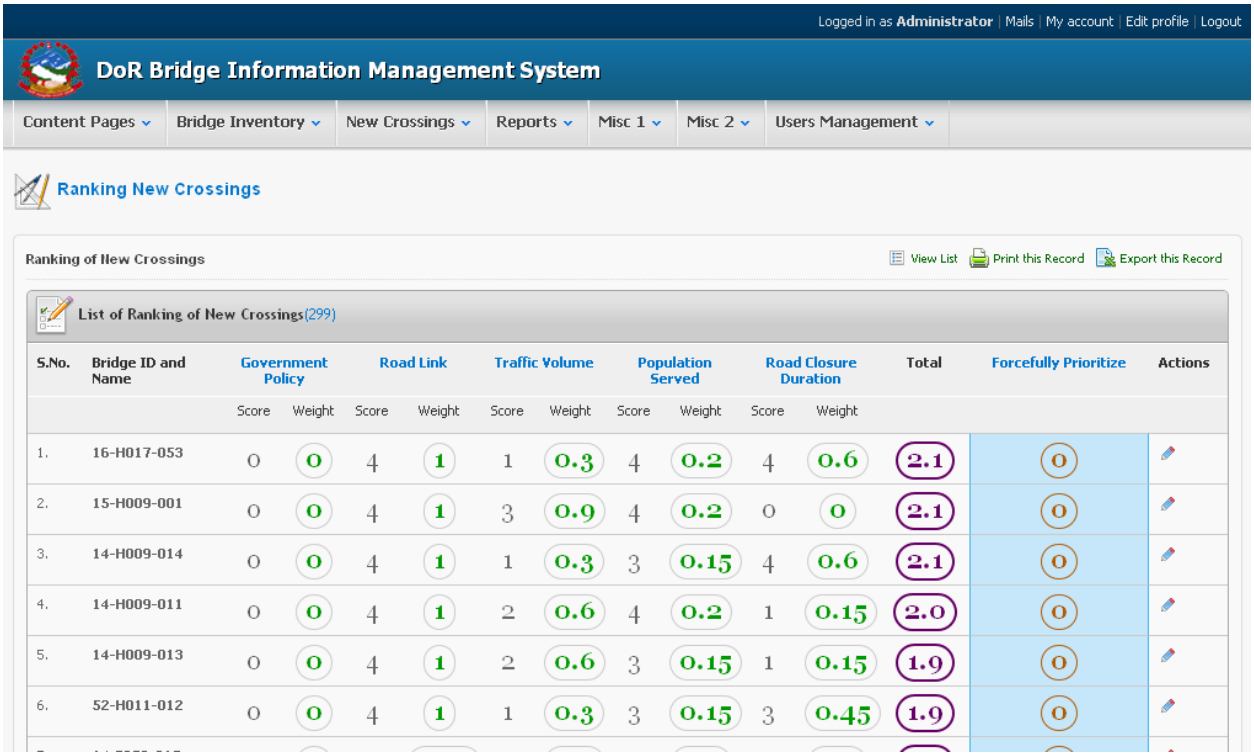
DoR Bridge Information Management System
Content Pages
Bridge Inventory
New Crossings
Reports
New Crossings
Bridges List
Add a new data
View List
Print this Record
Export this Record
List of Bridges (10)
Block Selected
S.No. Bridge Number Bridge Name Gen Info OI Graph Info Status Actions
1. 04-PH-008 Dhadkan Identified
2. 04-PH-009 Aaduwa Identified
3. 04-PH-011 Biringi Identified
4. 04-PH-012 Sano Mai Identified
5. 04-PH-013 Thulo mai Identified
6. 04-PH-014 Baniyani Identified
7. 04-PH-015 Kamal Identified
8. 04-PH-016 Krishne Identified

New Crossings List

3. List of Ranked New Crossings :

In order to rank (add/edit rankings) a New Crossing user has to click on the tool icon under Actions column of New Crossings list. And “List of Ranked New Crossings” leads to the list of Ranked new crossings just like shown below in the picture.



S.No.	Bridge ID and Name	Government Policy		Road Link		Traffic Volume		Population Served		Road Closure Duration		Total	Forcefully Prioritize	Actions
		Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight			
1.	16-H017-053	0	0	4	1	1	0.3	4	0.2	4	0.6	2.1	0	
2.	15-H009-001	0	0	4	1	3	0.9	4	0.2	0	0	2.1	0	
3.	14-H009-014	0	0	4	1	1	0.3	3	0.15	4	0.6	2.1	0	
4.	14-H009-011	0	0	4	1	2	0.6	4	0.2	1	0.15	2.0	0	
5.	14-H009-013	0	0	4	1	2	0.6	3	0.15	1	0.15	1.9	0	
6.	52-H011-012	0	0	4	1	1	0.3	3	0.15	3	0.45	1.9	0	

New Crossings ranking List

Reports

Report section is located at fourth position on the top menu. It consists of following sub menus.

Bridge Inventory

- View Bridge Inventory
- Condition and urgency
- Routine maintenance
- Multi Criteria Analysis
- Multi year maintenance

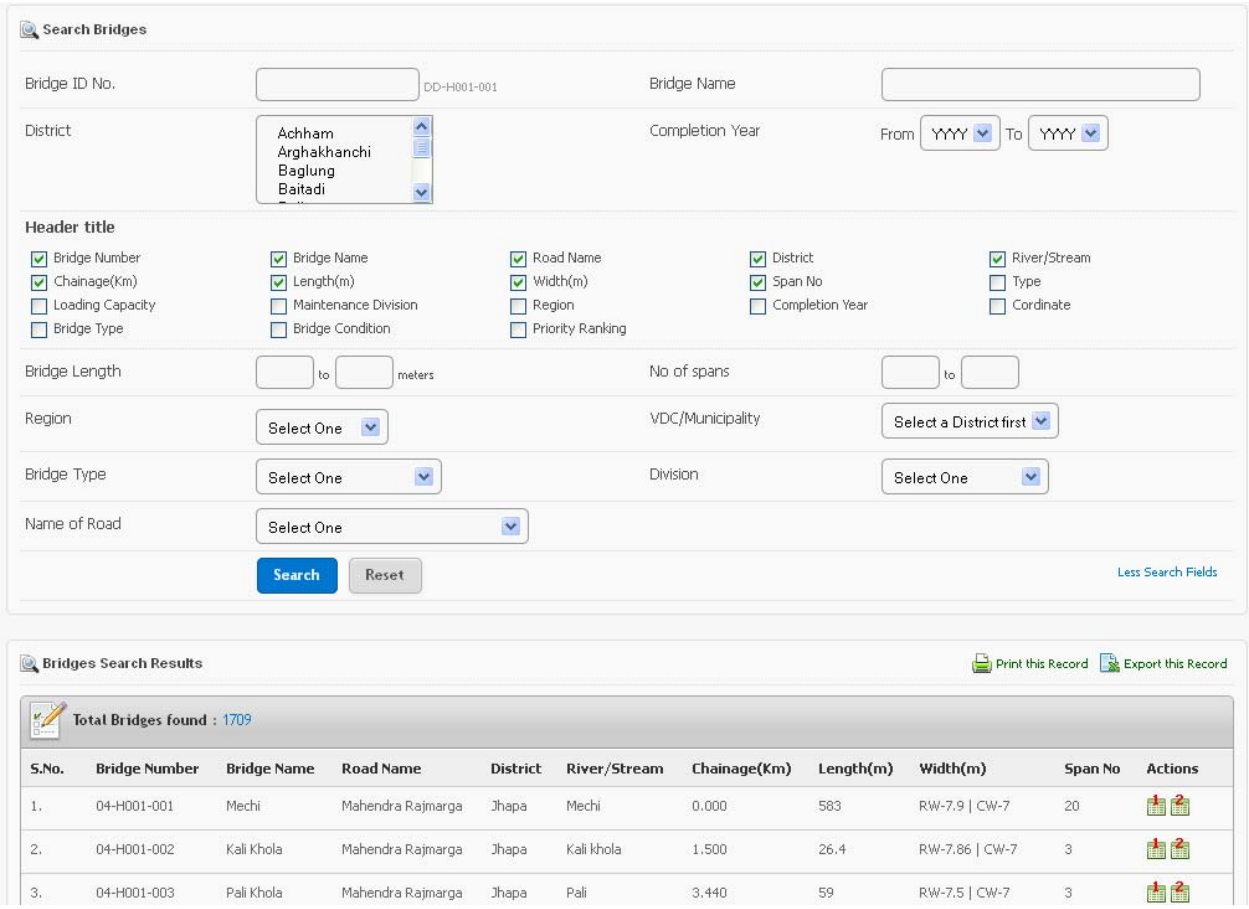
New Crossings

- View New Crossings
- Multi Criteria Analysis

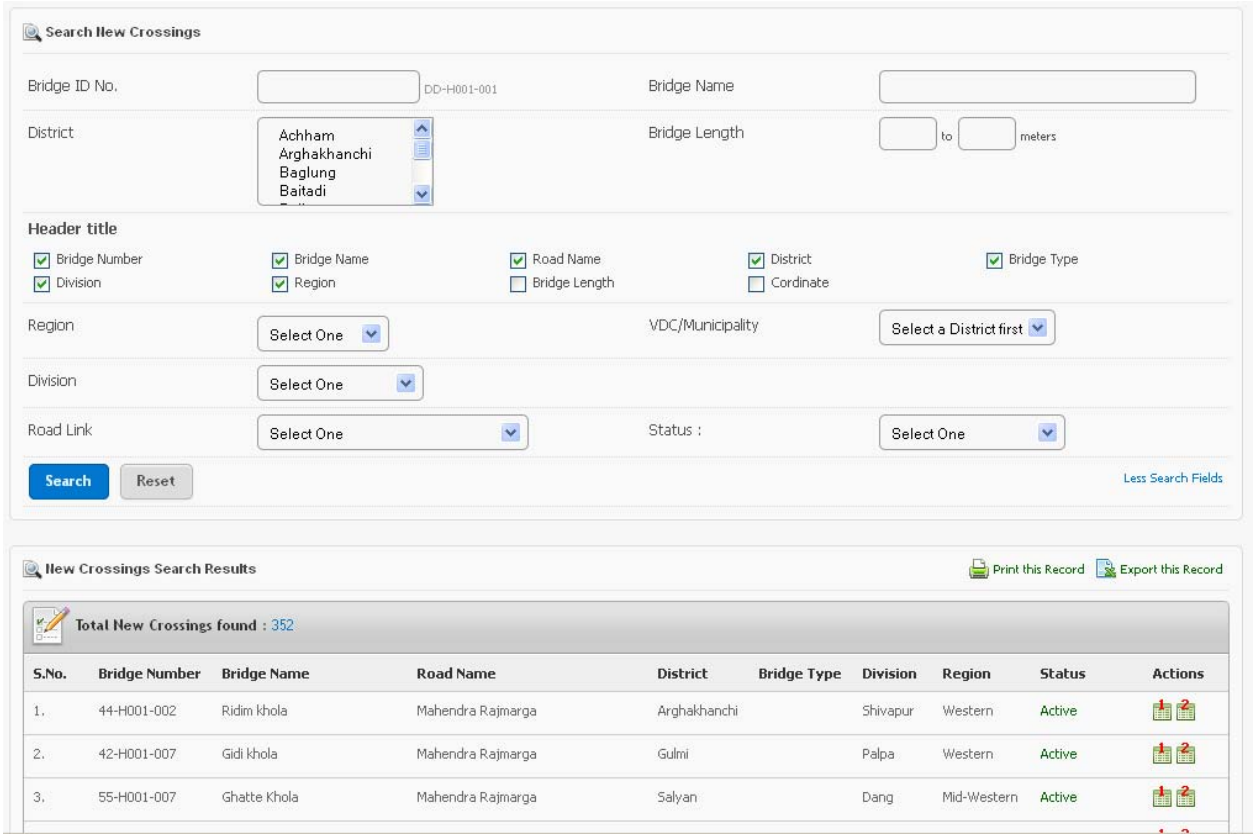
(Note: Data can be searched for above sections in the report section. One of its examples is shown below.)

1. Bridge Inventory :
   It is a page where user can have several filter options to search one or more bridges. It not only shows us the found list of bridges but also gives links 2 advanced reports of a particular bridge

(i.e. all the data added via 7 forms while inserting an existing bridge including photographs) under “Actions” column.



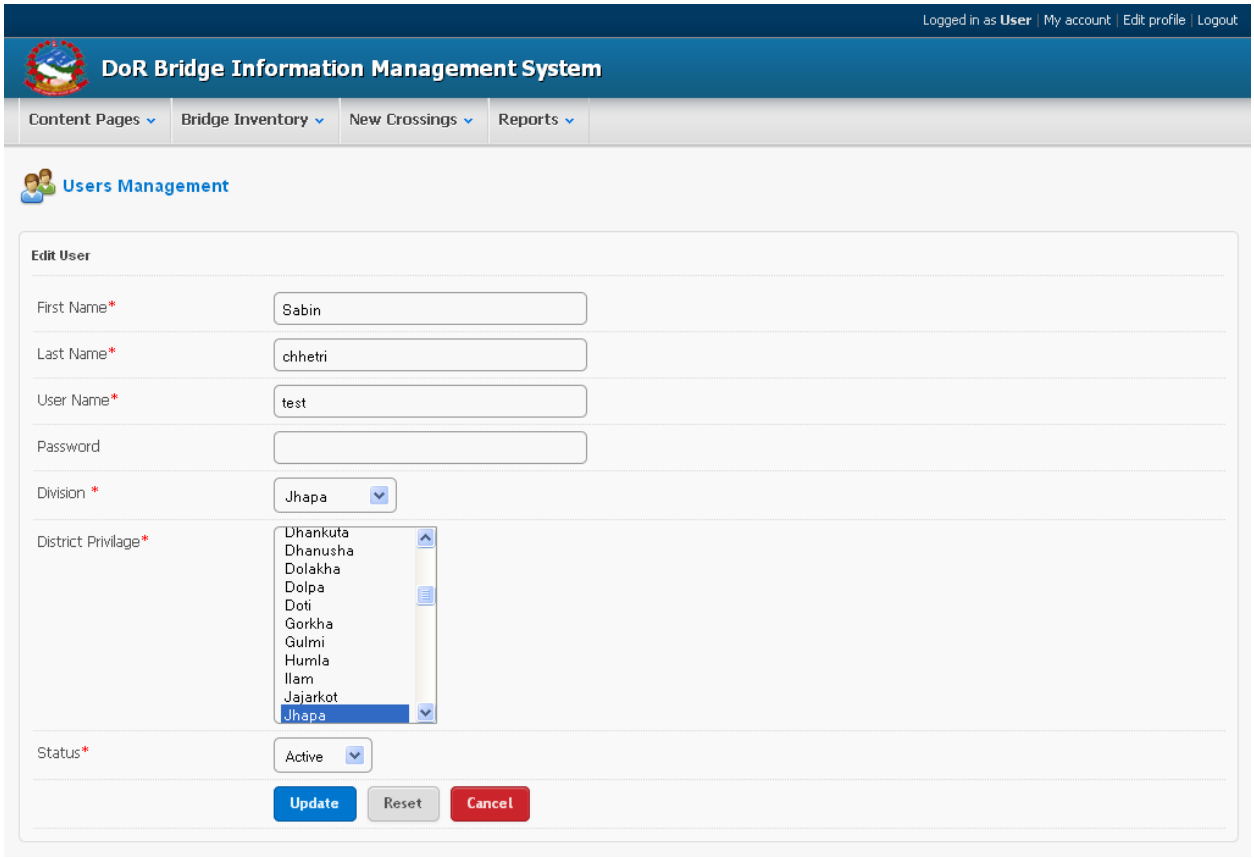
2. New Crossings :
   It is a page where user can have several filter options to search one or more New Crossings. It not only shows us the found list of New Crossings but also gives links 2 advanced reports of a particular New Crossings (i.e. all the data added via 7 forms while inserting an existing New Crossings including photographs) under “Actions” column.



New Crossings ranking List

Edit Profile

This section allows user to edit own profile.



Edit own profile

Logout

This link is located on the top-right section of the page. It is highly recommend to “logout” by clicking on this link to destroy the login session.

Conclusion

Every “Listing” section consists of 2 links; Print this Record & Export this Record. Export this Record link exports the record to .xls (MS Excel) file and Print this Record suggests the user to print the listing by exporting the data to .xls first then print manually.

The End